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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of the Claims:

1.   (Currently Amended): A data transfer method for transferring data between two processing systems, ~~wherein said two processing systems operate independently, said method~~ comprising:

receiving a wireless signal data packet from a radio frequency physical layer processing system;

storing the received data packet into a first memory device <u>associated with the media access control layer</u>, the received data packet comprising a header portion and a data portion;

~~formatting the data portion by a media access control layer processor while the data packet is stored in the first memory device; and~~

~~executing a single processor instruction on the media access control layer processor to directly transfer a portion of the stored data packet from the first memory device to a main memory device~~

<u>processing the header portion of the packet by a media access control layer processing system while the data packet is stored in the first memory device;</u>

<u>determining whether the data packet is one of group consisting of a video stream and an audio stream by the media access control layer processing system;</u>

<u>transferring the header portion to a main memory and the data portion to a memory associated with a host processing system responsive to determining the data packet is one of the group consisting of a video stream and an audio stream; and</u>

<u>executing a single processor instruction on the media access control layer to transfer the header portion and the data portion to the main memory responsive to determining the data packet is not one of group consisting of a video stream and an audio stream;</u>

<u>wherein said media access control layer processing system and the host processing system operate independently.</u>

2.   (Currently Amended): A data transfer method according to claim 1, wherein said method further comprises:

transferring the data portion of the data packet stored in said ~~first memory of the second processing system~~main memory to the ~~second~~memory associated with~~of~~ the ~~second~~host processing system, wherein the ~~second~~memory associated with the host processing system is upstream.

3.   (Original) A data transfer method according to claim 1, wherein said first memory device is a FIFO memory device.

4.   (Currently Amended) A data transfer method according to claim [[2]]1, wherein said ~~second~~memory ~~of~~associated with the ~~second~~host processing system is a FIFO memory device.

5.   (Original) A data transfer method according to claim 1, wherein method further comprises byte-aligning the data stored in said first memory device.

Claims 6-14 (Cancelled).

15.   (Currently Amended) A system for transferring data between two processing systems~~, wherein said two processing systems operate independently, said system~~, comprising:

means for receiving a wireless signal data packet from a radio frequency physical layer processing means;

means for storing the received data packet into a first memory means, the received data packet comprising a header portion and a data portion;

means for processing the header portion of the packet by a media access control layer processor means while the packet is stored in the first memory means;

means for executing a single processor instruction on the media access control layer processor means to directly store the header portion and the data portion of the data packet into a

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main memory means responsive to the means for processing determining the data packet is not one of the group consisting of a video stream and an audio stream; and

means for ~~executing a single processor instruction on the media access control layer processor means to~~ directly stor[[e]]ing the header portion into a main memory means and for directly storing[[a]]the data portion of the data packet ~~stored in the main memory means to a host memory means upstream of a host processor~~into a memory means associated with a host processing means responsive to the means for processing determining the data packet is one of the group consisting of a video stream and an audio stream;

wherein the media access control layer processor means and the host processing means operate independently.

16.   (Currently Amended) A system according to claim 15, wherein said media access control layer processing means formats the data portion stored in said ~~host~~main memory means using a host protocol so as to enable communication of the data portion to a remote host across a wired network.

17.   (Original) A system according to claim 15, wherein said first memory means is a FIFO memory device.

18.   (Currently Amended) A system according to claim 16, wherein said ~~second~~ memory means associated with the host processing means is a FIFO memory device.

Claims 19-42(Cancelled).